Virtual Iron® Software Release Notes

Virtual Iron® Version 4.2

00122407R1

Contents

Enterprise Edition Upgrade Instructions

If you are running an earlier version of Virtual Iron® EE or XEE, use this link and follow the instructions to upgrade to the current version of the product. Install the new VS Tools onto each of your Virtual Servers.

http://www.virtualiron.com/services/virtual-iron-42-upgrade.cfm

Single Server Edition Upgrade Instructions

If you are running an earlier version of Virtual Iron®, use this link and follow the instructions to upgrade to the current version of the product.

http://www.virtualiron.com/services/virtual-iron-ss-42-upgrade.cfm

NEW IN THIS RELEASE

Release 4.2 includes the following major enhancements:

- VS Tools support for the following additional operating systems:
  - SUSE Linux Enterprise Server 10 32-bit and 64-bit
  - Red Hat Enterprise Linux 5 32-bit and 64-bit
- Multi-pathing for virtual server Ethernet and Fibre Channel networks to support business continuity and redundancy.
- Substantial improvements to disk performance.
- LiveSnapshot™, which provides logical disk and virtual server snapshots for hot backup and patch management. These capabilities enable off-loaded, space efficient, and no-downtime backups on live virtual machines running in production and development environments.
- The ability to reboot virtual servers without the Virtualization Manager running.
- Support for NDB CD ROM .iso files, which can now be used as data disks in addition to boot disks.
- The packaging of VSTools as an ISO, which appears to the administrator as a virtual CD ROM, to further simplify deployments and upgrades.
- A significant reduction in node boot and discovery times when there are large numbers of iSCSI physical disks.
- Increased storage on demand with support for the dynamic addition of physical disks to a disk group, which can also now contain more than one physical disk.

FIXED IN THIS RELEASE

Number	Fixed in This Release
458	CTRL-ESCAPE, ALT-ESCAPE AND ALT-TAB WERE NOT FUNCTIONAL Ctrl-Escape, Alt-Escape, and Alt-Tab in the pull-down menu entitled **Commands** in the Virtual Server Console window, were not functioning.
1504 4159	THE VIRTUALIZATION MANAGER USER INTERFACE RAN SLOWLY IF ANTI-VIRUS SOFTWARE WAS RUNNING ON THE MANAGEMENT SERVER HOST. Some anti-virus software inspects Java applications, which had the potential of reducing Virtualization Manager client performance.
3803	DEDICATED MANAGEMENT NETWORKS MUST USE A CLASS C ADDRESS For management networks, the requirement to use Class C addresses only is no longer necessary.

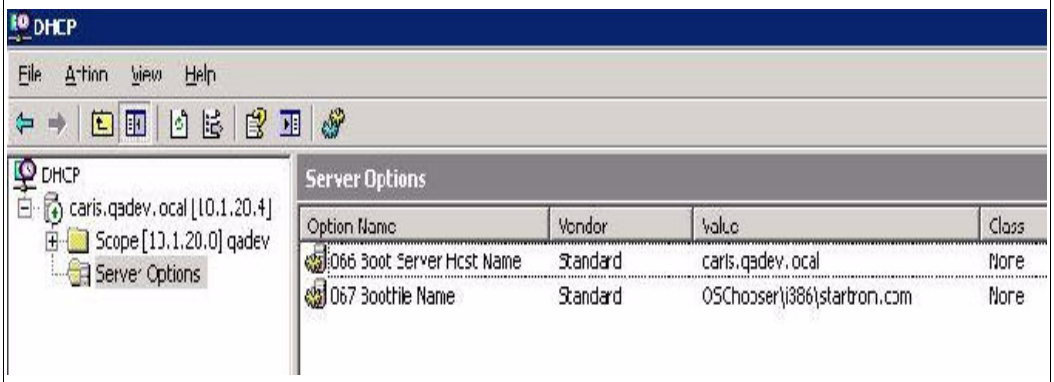
Open Issues in this Release

Following are known issues related to this release.

Reference Number	Open in This Release
29	**LINUX TIMER ISSUE** Occasionally during Linux boot or kernel calibration issues, the following error will appear and the operating system will crash: MP-BIOS bug: 8254 timer not connected to IO-APIC Kernel panic - not syncing: IO-APIC + timer doesn't work! Try using 'noapic' Please report crashes to Virtual Iron Technical Support. See Contacting Virtual Iron Support.
172	**QLOGIC HBAS NOT REPORTING PERFORMANCE INFORMATION** Nodes with QLogic HBAs will not report disk performance data in the Virtual Server Performance chart.
355	**JBOD SAN DISKS ARE NOT RECOMMENDED AS VIRTUAL SERVER STORAGE DEVICES** JBODs can be used for storage devices for Virtual Servers, but they are not recommended. If JBOD disks go off-line and then back on-line while connected to managed nodes, the node will go into an error state that requires a node reboot. Use SAN disks connected via a SAN controller.
537	**KEYBOARD INPUT INTO VIRTUAL CONSOLE OCCASIONALLY RESULTS IN REPEATED CHARACTERS** When you type into a virtual console that contains an X windows display, occasionally the keyboard output will be repeated. For example if you type **ls** into a terminal window in X, you may see llllssss output in the virtual console. The workaround is to disable the keyboard repeat function.
619	**VIRTUALIZATION MANAGER SHUTDOWN CAUSES VSS BOOTED FROM A NETWORK BOOT DEVICE TO HANG** Stopping or Restarting the management server takes down the NBD server. This takes down all VSs booted using NBD. To resolve this issue, restart the management server. Then, perform a hard reset on each impacted VS.
723	**POOR NETWORK PERFORMANCE ON 3COM NICS** Poor network performance has been observed on 3COM NICs. This may impact the performance of virtual server network operations.

Reference Number	Open in This Release
892	**APPLICATIONS THAT ATTEMPT TO COMMUNICATE DIRECTLY TO AN HBA ARE NOT SUPPORTED** Kernel-level management applications or agents (such as Emulex HBAnywhere, QLogic SANSurfer) in a guest operating system that communicate directly to an HBA or directly to other specific devices are not supported. Running these types of applications may cause virtual servers to become unresponsive.
1122	**AFTER A RED HAT INSTALL, THE VCONSOLE IS BLANK WHEN VIRTUAL SERVER BOOTS TO RUN LEVEL 5** The first time Red Hat boots after an OS installation, the virtual console may be blank when the system goes into run level 5. Workaround: Remove **rhgb** from the boot line in **/boot/grub/menu.lst**.
1189 2278 3006	**ADDING OR REMOVING LUNS COULD REQUIRE A NODE REBOOT** When adding or removing LUNs to the system to modify storage capacity, it is sometimes necessary to reboot the nodes to accurately display the LUN configuration. If a LUN is removed or offline and the Virtualization Manager shows it as online, errors could result if a user attempts to perform operations on that LUN, such as creating virtual hard disks. First, LiveMigrate all virtual servers off the node, then reboot the node. You can then LiveMigrate servers back onto the node.
1816	**VIRTUALIZATION MANAGER INSTALL FAILS WITH BONDED ETHERNET** The Virtualization Manager installer does not handle bonded Ethernet controllers. Make sure the network controller on the node that will be running the management server is not bonded before starting the installation.
1962	**DATACORE THIN PROVISIONING CONFIGURATION REQUIREMENTS** DataCore LUNs used for logical volume groups must have sufficient backing storage for the size of the Virtual Iron volume group. Set the Datacore NMV chunk size to be 4 MB.
2028	**RH3-U8 CONSOLE KEYBOARD NOT WORKING WITH KUDZU** If RedHat 3 is installed while the virtual server is configured in the Virtualization Manager with a USB mouse (for example, RHEL4 LINUX) instead of a PS2 mouse, you will be in Kudzu after you boot with a PS2 mouse configuration. Kudzu can not use the mouse or keyboard at that point and will time-out. The system will continue to boot. Workaround: Configure the virtual server properly in the Virtualization Manager prior to installing. If the problem does occur, correct the Virtualization Manager virtual server configuration. Then, boot the virtual server and manually invoke Kudzu from a console window. Remove the USB drive when you are prompted to do so.

Reference Number	Open in This Release
2244	**THE ADMINISTRATION MANAGER IS NOT COMPATIBLE WITH JAVA BUILD 1.5.0_06_B05.** Virtual Iron® recommends running the latest Java Version 1.5.0 (build 1.5.0_10-b03 or later) on the system that is running the Administration Manager client.
2549	**DYNAMIC RESIZING OF LUNS** Use the following procedure if you have to resize a LUN. 1. Cause the LUN you wish to resize to go offline, which is depicted in the Management Server Hardware view as offline. 2. Delete that LUN from the Management Server Hardware view. 3. Resize the LUN to your needs. 4. Rediscover the LUN in your Management Server Hardware view with the **Node--> Rediscover** option or the **Node--> Rescan SAN Ports** option.
2763	**IPV6 NETWORKS ARE NOT SUPPORTED.** IPV6 networks are not supported for dedicated management networks, iSCSI networks, or networks used by virtual servers.
2884	**VS SHUTDOWN DOES NOT WORK IF YOU ARE NOT LOGGED INTO THE CONSOLE** For a Windows 2003 server, if the login popup is visible in the console window, you cannot shut down the virtual server via the management server.
2978	**RED HAT 3 VIRTUAL SERVER TOOLS HAVE SEPARATE RPMS FOR INTEL AND AMD PROCESSORS** VS Tools for RH3 have separate RPMs for Intel and AMD processors. The RPM you install in a virtual server must match the processor type (Intel or AMD) of the node (physical server) on which the virtual server is installed. Name these virtual servers, since they will only run on that processor type from that point forward. AMD: virtualiron-2.4.21-47.ELsmp-4.1.*.athlon.rpm Intel: virtualiron-2.4.21-47.ELsmp-4.1.*.i686.rpm Use the standard rpm -Uvh to install the proper VS Tools as described in the *Virtualization Manager Administrator Guide,* Creating and Configuring Virtual Servers.
3006	**SEE 1189.**

Reference Number	Open in This Release
3045	**WINDOWS MOUSE LOSES CONNECTIVITY UPON FIRST BOOT AFTER VIRTUAL IRON UPGRADE FROM V3.X TO V4.X** When Virtual Iron is upgraded, the first time each existing Windows virtual server is booted, the mouse loses connectivity. You may see the hardware wizard notification that a PCI device cannot be found and that a new device is discovered. Workaround: Please go through the hardware wizard as it is connecting the new virtual mouse hardware. The mouse will function correctly once you complete the steps in the hardware wizard.
3445	**VIRTUAL IRON AND MICROSOFT RIS** When using Windows RIS to install Windows into virtual servers, note that Windows 2000 RIS Server is unsupported; Windows 2000 does not provide RealTek NIC driver support. (Windows 2003 Server and RIS is supported.) Workaround: Configure the Windows DHCP server to use options 66 (boot server host name) and 67 (boot file name). Set DHCP option 67 to point to the location of your startrom.com. This causes the DHCP and PXE boot process to boot the RIS kernel. Refer to figure below.  For additional information, refer to: http://support.microsoft.com/kb/244036/
3466	**WINDOWS RE-ACTIVATION MAY BE REQUIRED WHEN UPGRADING FROM VI V3.X TO V4.X** Virtual Iron v4.x presents a significantly different virtual motherboard to virtual servers than v3.x. In some cases, these differences may be enough to trigger a Windows request to reactivate the virtual server's copy of Windows with Microsoft.

Reference Number	Open in This Release
3494	**WINDOWS 2000 MAY REPORT AN UNKNOWN PCI DEVICE** When a Windows 2000 virtual server boots, you may see an unknown PCI device reported as found. This is an innocuous message, and this PCI device should be disabled. This device is the HPET timer which is not used in the VI virtual environment.
3831	**UPGRADING TO V4.X FROM V3.X CAUSES WINDOWS VIRTUALIZATION MANAGERS TO LOSE STATIC NETWORK CONFIGURATION INFORMATION** When a Virtual Iron installation is upgraded to v4.x from v3.x, any Windows virtual servers will lose any static IP address assignments they may have when they are first booted without VSTools, and then again when they are first booted with the 4.x VSTools. To restore network connectivity, manually re-enter the static network configuration for the Virtualization Manager. This does not affect Windows VMs that use DHCP to auto-configure network settings.
3839	**LEFTHAND NETWORKS ISCSI SERVERS** During qualification testing of LeftHand Networks (LHN) iSCSI servers, it was found that the Open-iSCSI initiator used in the Virtual Iron virtualization layer, is not able to discover more than 90 iSCSI disks. Further testing indicates the same limitation exists when using SLES-10 SP1 as an iSCSI client. If you need more than 90 disks with LHN iSCSI storage, you can use the Virtual Iron virtual disk management features to partition raw iSCSI disks into multiple logical disks.
4172	VNICs do not presently support dynamically changing the MAC address This attribute is used by Windows Network Load Balancing (NLB). Removing NLB and the secondary IP and then rebooting restores connectivity.
4317/ 4330	**BONDED ETHERNET NICS SHOULD BE CONFIGURED TO SEPARATE SWITCHES** If you configure bonded Ethernet NICs to the same switch, you can experience up to 60 seconds of connection failure when a port fails. Outgoing data traffic experiences no issues. It is recommended to configure bonded Ethernet NICs to separate switches, creating a fully-redundant topology, and no incoming connection failure window.

Reference Number	Open in This Release
4456	**RHEL5 STATS NOT RETURNING AN IP ADDRESS** After installing Virtual Iron Accelerated Drivers your RedHat Enterprise Linux 5 guest may have its eth0 network adaptor renamed to eth0.bak. The following steps can be taken remedy this problem: 1. Turn off automatic running of kudzu, using the **chkconfig** command: chkconfig --del kudzu 2. Manually move the **ifcfg-eth*.bak file(s)** back to their original names after the first reboot, and then boot again. ***NOTE:*** *Repeat this operation any time the use of accelerated drivers is enabled or disabled.* 3. Erase the kudzu **hwconf** configuration entries for all network interfaces during tools installation. Note that this only works if the administrator switches to use accelerated drivers for the next reboot. As mentioned in step 2 above, the problem will return if the use of accelerated drivers is toggled on or off later.
4577	**WINDOWS VIRTUAL SERVERS CREATED IN V3.X NEED TO CHANGE HALS TO RUN SMP IN V4.X** Windows virtual servers created in Virtual Iron v3.x were created with a uni-processor Hardware Abstraction Layer (HAL). In order to run these virtual servers as SMP virtual servers in v4.x, replace the uni-processor HAL with a multiprocessor HAL. Please consult Microsoft's knowledge base (#299340) for the procedure to replace the HAL.
4779	**HIGH CPU USAGE ON MGMT SERVER AFTER UPGRADE** When performing an upgrade to the Virtualization Manager, you must insure that the Virtualization Manager is completely stopped and that there are no clients running and connected to the server. Once you have ensured that everything has been stopped, you may proceed with the upgrade.
4781	**IF UPGRADE LOCATION IS ON A DISK PATH WITH SPACES IN THE FOLDERS, UPGRADE FAILS** On a Linux system, ensure that there are no spaces in the installation path so that you can later upgrade the product. For example, if you attempt to upgrade your Virtualization Manager originally installed into /opt/Virtual Iron/ it will fail in the upgrade script.

Reference Number	Open in This Release
4803	**TRYING TO INSTALL VSTOOLS ON SLES 10 64-BIT RETURNS ERROR** Installing VSTools on SLES 10 64-bit returns the following error: linux-sl9o:~ # rpm -ivh virtualiron-2.6.16.46-0.12-smp-4.2.8-13.x86_64.rpm error: Failed dependencies: xen-kmp conflicts with virtualiron-2.6.16.46-0.12-smp-4.2.8-13.x86_64 linux-sl9o:~ # uname -a Linux linux-sl9o 2.6.16.46-0.12-smp #1 SMP Thu May 17 14:00:09 UTC 2007 x86_64 x86_64 x86_64 GNU/Linux The XEN kernel packages should not be installed inside a virtual server. If they have been installed, remove them: 1. Start up YaST. 2. Select **Software Management**. 3. Under the **Filter** option, select **Search**. 4. Search for **xen**, and remove all packages related to xen.
NONE	**SAN MULTIPATH SUPPORT** SAN multipath for fibre channel-based SAN has been tested on limited configurations in Virtual Iron. Please see the Virtual Iron HCL for complete multipath support information: http://www.virtualiron.com/products/servers.cfm SAN multipath for iSCSI-based SAN will be tested and supported in a future release.

PRODUCT DOCUMENTATION

The following documents are also available online:

- *Virtualization Manager™ Administrator Guide* - Explains how to configure and manage virtual data centers and virtual servers.
- *Virtualization Manager™ Getting Started Guide* - Guides you through the process of getting a virtual server up and running
- *Virtual Iron Tutorial* - Guides you through installation, and storage, boot, and memory configuration options of a virtual server.

CONTACTING VIRTUAL IRON SUPPORT

Use this information to reach Virtual Iron® customer support.

Phone: 1-800-314-9872 (Select option 2)

Mail: support@virtualiron.com

Web: www.virtualiron.com/services/support_login.cfm